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September 17, 2003

**EX PARTE**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
The Portals  
445 12<sup>th</sup> St. SW  
Washington, D.C. 20554

Re: **CC Docket 01-338**

Dear Ms. Dortch:

This is to notify you that on September 16, 2003, BellSouth met with Christopher Libertelli, Senior Legal Advisor to Chairman Powell, and Matt Brill, Senior Legal Advisor to Commissioner Abernathy, to discuss the need for clarification of the Commission's Triennial Review Order. Specifically, BellSouth urged the Commission to clarify that service-equivalent architectures, such as Fiber-to-the-Curb, be treated similarly to Fiber-to-the-Home in new build situations. Representing BellSouth at the meeting were Herschel Abbott, Bob Blau, Peter Hill, Fred McCullum, Jon Banks, and the undersigned. The attached documents were distributed at this meeting.

Pursuant to Commission rules, please include this notice and attachments in the record of the proceeding identified above.

Sincerely,

  
Glenn Reynolds

cc: Chris Libertelli  
Matt Brill

Enclosure

# Fiber Loops

**Peter Hill**

**September 16, 2003**

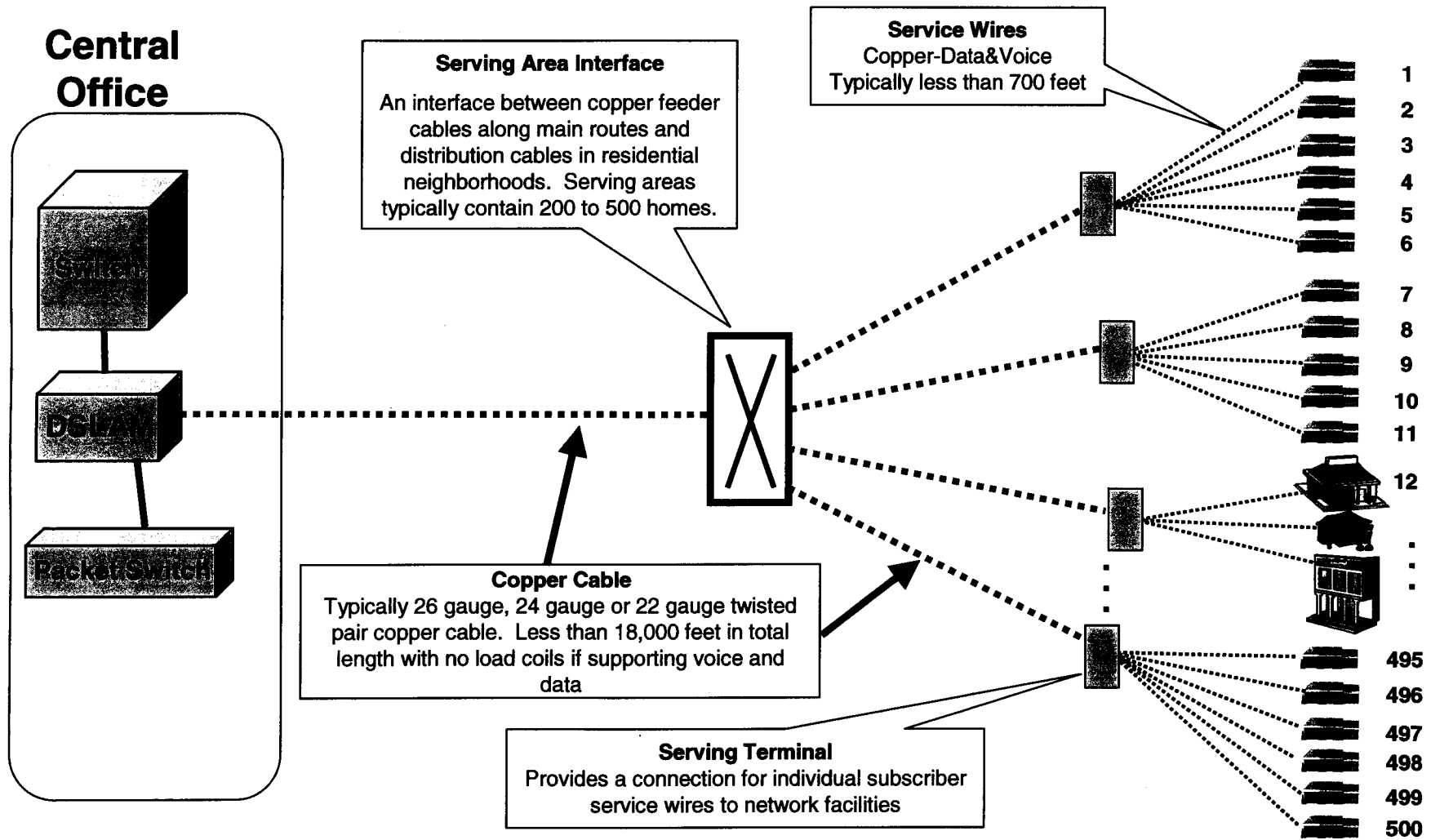
## Outline

- **BellSouth Fiber Background**
- **Architectural Background**
  - + All Copper Loops
  - + Fiber Fed Digital Loop Carrier (DLC)
  - + Fiber to the Curb
  - + Fiber to the Home
  - + Fiber to the Multiple Dwelling Unit (MDU)
- **Service Capabilities**
- **Challenges with the FCC Order**
- **Proposed Definition**

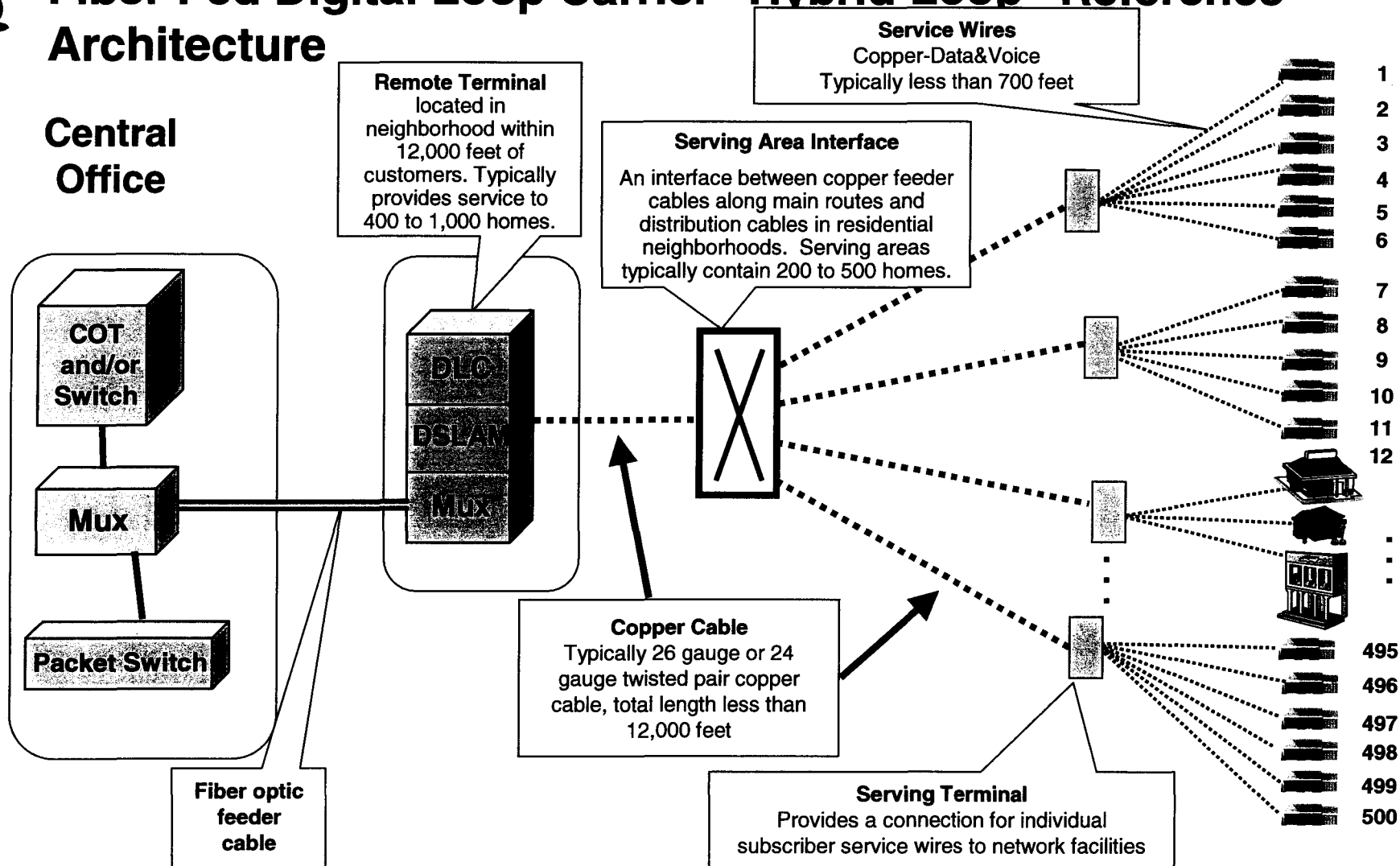
## **BellSouth Fiber Background**

- **Deployed first Fiber to the Home (FTTH) Network in 1986**
  - + Hunters Creek Florida
- **Began Deploying Fiber Distribution in 1995**
  - + By End of Year, 1 Million Homes will be Served By Fiber
  - + Voice, Data, and Video Capable Architecture
- **Fiber used for all New Feeder Placements beginning in 1996**
- **High Level of Fiber in Feeder and Distribution**
  - + 50% of our Loops could support 5 Mbps
  - + 80% could support 3 Mbps
- **Deployed the first US Passive Optical Network (PON) FTTH System**
  - + Atlanta 1999

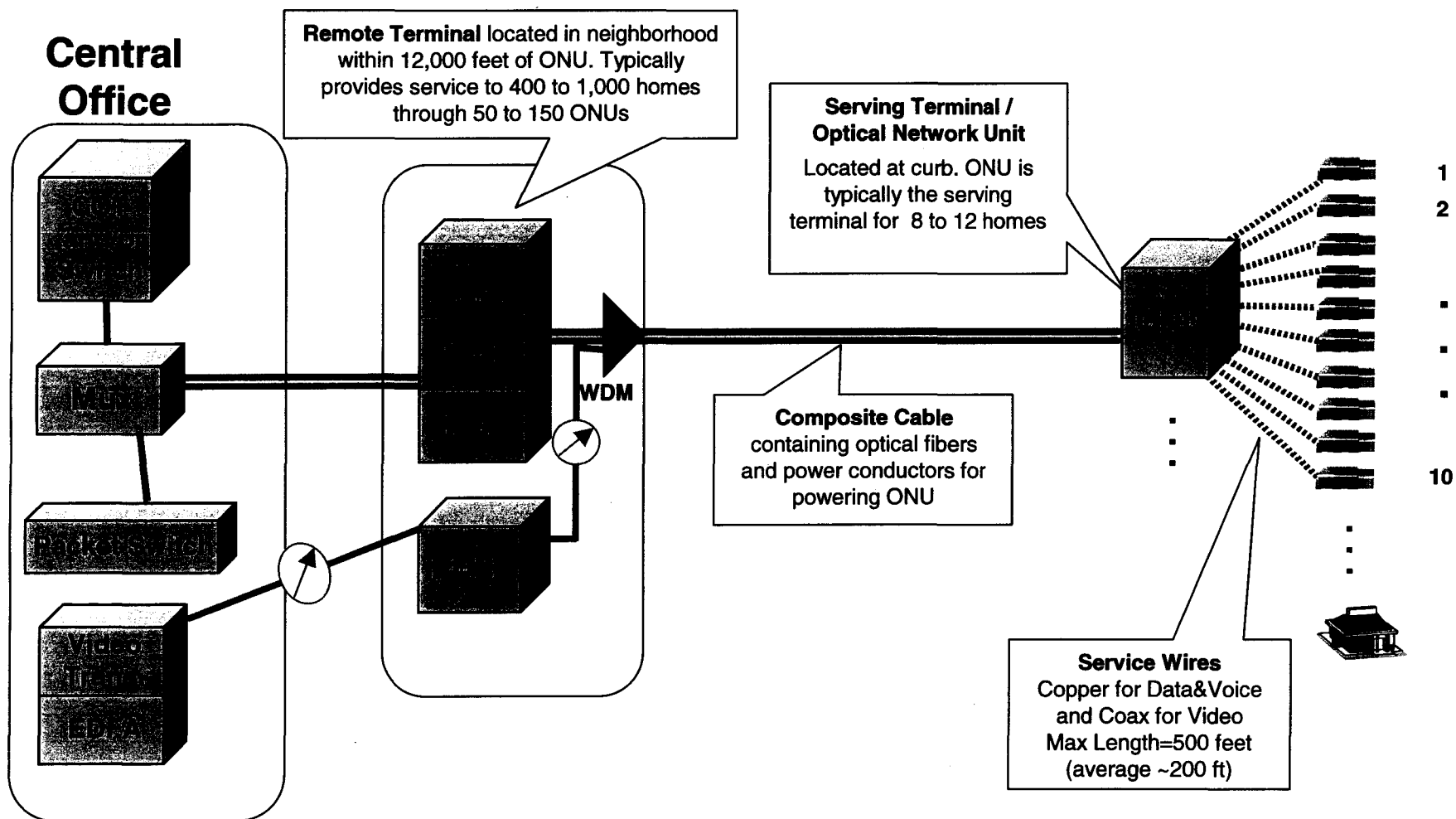
# All-Copper Loop Reference Architecture



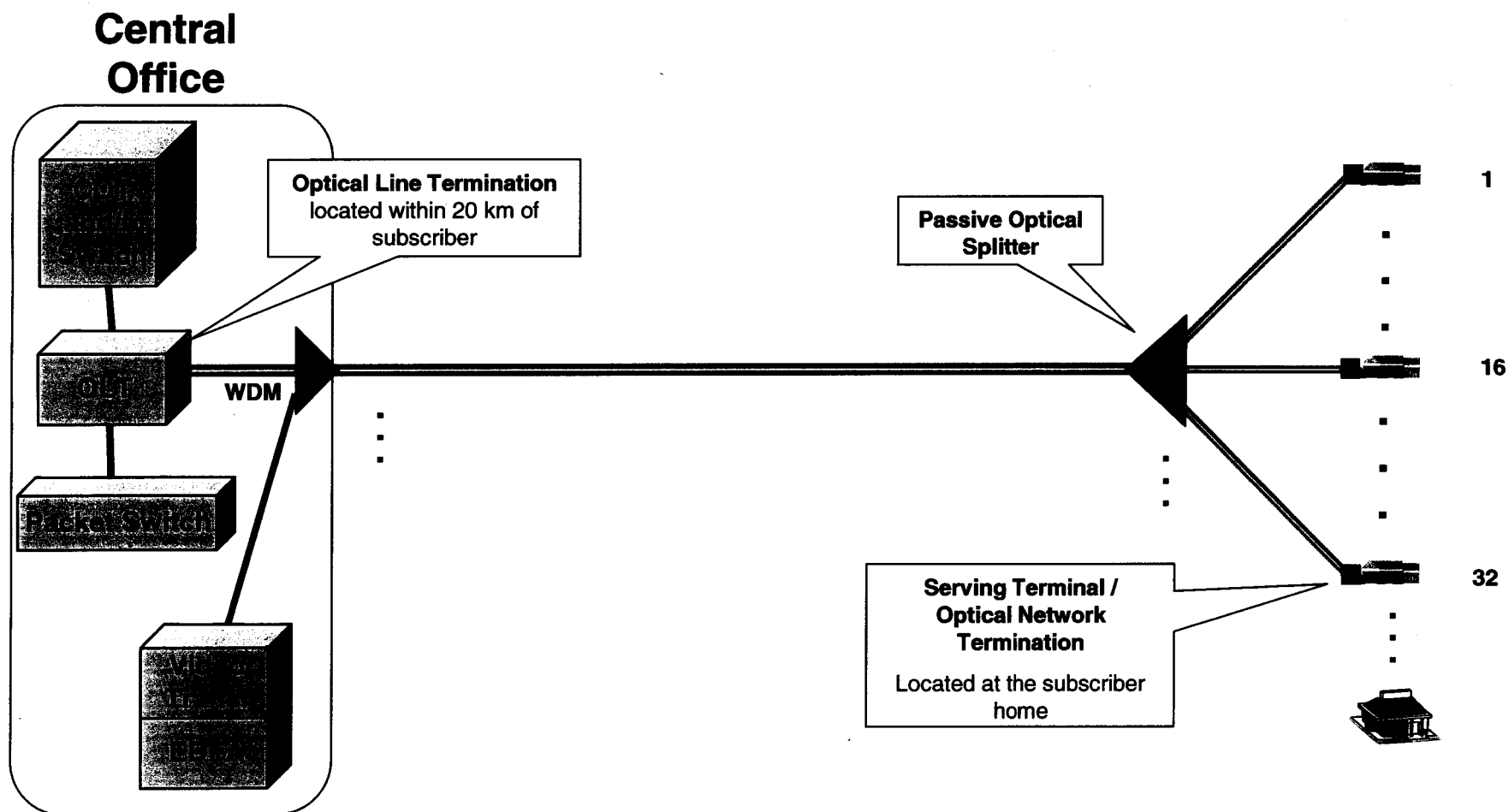
# Fiber Fed Digital Loop Carrier "Hybrid Loop" Reference Architecture



## Fiber to the Curb (FTTC) Reference Architecture

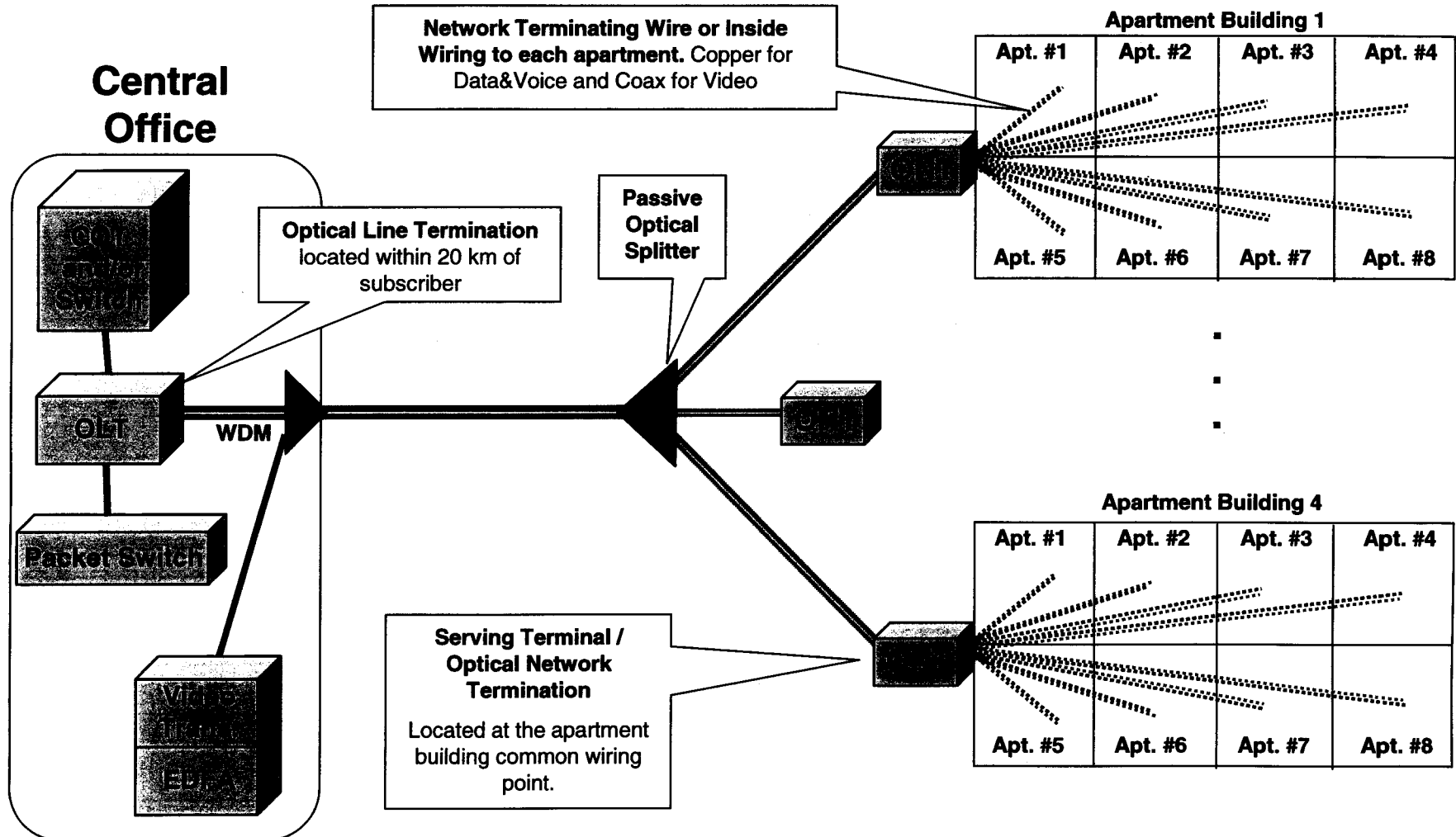


## Fiber to the Home (FTTH) Reference Architecture



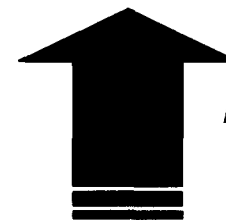


## Fiber to the Multiple Dwelling Unit (MDU)



## Service Capabilities

	Voice	Data	Video
Fiber to the Curb	Yes	> 100Mbps	Yes
Fiber to the Home	Yes	> 100Mbps	Yes
Fiber to the Multiple Dwelling Unit (MDU)	Yes	> 100Mbps	Yes



*Massive  
Jump*

Fiber Fed Digital Loop Carrier "Hybrid Loop"	Yes	~5Mbps for 12kft	No
All-Copper Loops	Yes	~256Kbps for 18kft	No

## Challenges with Fiber Loops Portion of FCC Order

- **Service Equivalent Architectures (FTTH and FTTC) not Treated Equally**
  - + Architecture Picking by FCC
  - + Inconsistent with paragraph 50 of Triennial NPRM where FCC recognized FTTH/FTTC equivalence
  - + FTTC is MASSIVELY more Broadband Capable than Fiber Fed DLC
  - + Architecture needs to be selected based upon the most economical serving arrangement which may not always extend fiber all the way to the customer's "home."
- **Equal Treatment for "Homes" other than Single Family Suburbia**
  - + Apartments, Condominiums, Town homes, Etc.
- **Lacks Incentive to Quickly Increase Deep Fiber Greenfield Investment**
  - + FTTC Available today
    - ~315K New Homes will be built in BellSouth Territory this Year
    - We will serve ~135K of them with FTTC
  - + New Neighborhoods wired with Copper tomorrow will be Doomed to Low Speed Broadband and no Video for ~25-30 Years (even as Japan moves from 10M to 100M Broadband)
  - + Opportunity missed to get significantly more Broadband Out There

## Proposed Definition to Improve Fiber Loops Portion of Order

- *Fiber Loop:* A broadband transmission facility with capacity to deliver voice, video, and data services that consists of a fiber optic cable connection or transmission path, whether lit or dark, between a distribution frame (or its equivalent) in the central office and the loop demarcation point or serving terminal<sup>1</sup> at or near the premises.

- 1) *Serving Terminal:* The network equipment that provides a point to connect service wires for individual customers to the shared network facilities providing their service.